

WHAT IS CLAIMED IS:

1. A process for preparing alkyne carboxylic acids, comprising
oxidizing an alkyne alcohol with a hypohalite in the presence of a nitroxyl compound at a pH of greater than 7 within a reaction mixture; and
continuously adding the alkyne alcohol and the hypohalite to the reaction mixture.
2. The process as claimed in claim 1, wherein the reaction is carried out in a multiphasic system.
3. The process as claimed in claim 2, wherein at least one phase transfer catalyst is used.
4. The process as claimed in claim 1, comprising removing the reaction mixture continuously.
5. The process as claimed in claim 1, wherein the pH of aqueous phase of the reaction mixture is between 7 and 11.

6. The process as claimed in claim 1,
wherein the nitroxyl compound used is 4-hydroxy-TEMPO.
7. The process as claimed in claim 1,
wherein reaction temperature is between -5°C and 20°C.
8. The process as claimed in claim 1,
wherein from 2 to 3 mol equivalents of the hypohalite
are used based on the number of functional groups to be
oxidized.
9. The process as claimed in claim 1,
wherein the alkyne alcohol used is selected from the
group consisting of 2-propyn-1-ol and 2-butyne-1,4-diol.
10. The process as claimed in claim 1,
wherein the reaction is carried out in the presence of a
substance selected from the group consisting of phosphate
buffer and calcium carbonate.
11. A process for preparing alkynecarboxylic acids,
comprising
initially charging less than all of an alkyne alcohol to

be oxidized in a reaction mixture;

oxidizing the alkyne alcohol with a hypohalite in the presence of a nitroxyl compound at a pH of greater than 7 within the reaction mixture; and

continuously adding remainder of the alkyne alcohol and the hypohalite to the reaction mixture.

12. The process as claimed in claim 11,

wherein the reaction is carried out in a multiphasic system.

13. The process as claimed in claim 12,

wherein at least one phase transfer catalyst is used.

14. The process as claimed in claim 11, comprising

removing the reaction mixture continuously.

15. The process as claimed in claim 11,

wherein the pH of aqueous phase of the reaction mixture is between 7 and 11.

16. The process as claimed in claim 11,

wherein the nitroxyl compound used is 4-hydroxy-TEMPO.

17. The process as claimed in claim 11,
wherein reaction temperature is between -5°C and 20°C.
18. The process as claimed in claim 11,
wherein from 2 to 3 mol equivalents of the hypohalite
are used based on the number of functional groups to be
oxidized.
19. The process as claimed in claim 11,
wherein the alkyne alcohol used is selected from the
group consisting of 2-propyn-1-ol and 2-butyne-1,4-diol.
20. The process as claimed in claim 11,
wherein the reaction is carried out in the presence of a
substance selected from the group consisting of phosphate
buffer and calcium carbonate.